

# innop up

## CHALLENGE DESCRIPTION



### Introduction / Background:

Incorrectly disposed of lithium batteries and accumulators present the disposal and resource management with great challenges. Lithium-based battery types, which end up as incorrectly thrown into various waste streams such as residual waste, are the central cause of the increasing number of fires in the industry in recent years.

Lithium-ion batteries have a very high reactive potential due to their high energy density compared to other battery types. Due to various reasons, such as mechanical damage, thermal effects, overcharging, internal or external short circuit, these high amounts of energy can be released suddenly, resulting in rapid thermal breakdown (also called thermal runaway) or an uncontrolled release of heat.

In a ton of residual waste, lightweight packaging or metal packaging, there is an average of 1 lithium battery. Small electrical appliances contain an average of 12 lithium batteries per ton. In total, there are around 2,000,000 lithium batteries per year in these fractions. Due to the further increase in sales, in 5 years' time, with unchanged disposal behavior, double the number of incorrect throws in our municipal waste can be expected.

## Category:

As part of inno up, Müllex, as a leading company for the entire industry, is looking for innovative startups with solutions, services or technologies for the detection and separation of old lithium batteries and accumulators at the earliest possible stage of the collection. The ideas and intervention at every point in the process of using and recycling the battery are interesting, but the focus is on the process section from disposal by an end customer to landfill.

## Eligibility criteria:

In order to take part in the Müllex challenge, your startup should meet the following criteria:

- The startup should have been founded or the plan to found it should definitely exist
- Ideally, there is a first prototype or even a proof of market
- Working language German or English
- Willingness to work together in Austria and the greater Graz / Vienna area

## Offer to the winning team:

Müllex offers the winner together with the trade association

- The joint implementation of the further development and adaptation of the startup solution for prototypical use at Müllex
- In the event of success, the approval of the implementation for demo purposes for the startup and the naming of Müllex as a reference customer
- Communication and PR via the trade association, i.e. the trade association newsletter, the members' magazine "UP-Date" and the websites [www.dieabfallwirtschaft.at](http://www.dieabfallwirtschaft.at); [www.lithium-info.at](http://www.lithium-info.at)
- Communication as good practice among the member companies of the professional association
- Media utilization of the joint solution
- Prize money of up to EUR 1,500 for the winning teams

## Legal Disclaimer:

All natural and legal persons of legal age are eligible to participate, provided they meet the above-mentioned criteria for participation. Employees of Müllex Umwelt Säuberungs GmbH and their relatives as well as public officials are excluded from participation.

Müllex Umwelt Säuberungs GmbH defines a task (challenge) on the basis of which innovative startups register on an online platform via the project website [www.inno-up.at](http://www.inno-up.at). This platform is used to pre-select eligible participants, which are then presented to the buddy company. The most suitable three (up to a maximum of five) startups for the final (pitch day) are then selected by Müllex Umwelt Säuberungs GmbH with the involvement of the coaches; the finalists will be notified via email. In a final step, the ideas are finalized and presented. One or more winners can be chosen from the finalists. There is no legal claim to the conclusion of contracts or other business relationships between the participants /

winner and Müllex Umwelt Säuberungs GmbH. There is also no legal right to a final and / or the determination of a winner. The participants do not receive any allowance for their participation.

The conditions of participation, parts of the process or the entire process can be changed at any time. The changes will be announced in good time and published on the platform [www.inno-up.at](http://www.inno-up.at).

It is possible and participants expressly acknowledge that the research, development and other activities of the participants and Müllex Umwelt Säuberungs GmbH thematically overlap. The participants do not have any claims from this. The participant registration is considered as express consent to this disclaimer.